

AMENDMENTS TO THE CLAIMS

1. (Previously Presented) A needle-guide device for a medical probe comprising a base body having means for connection to the probe and an elongated guide hole for receiving a needle, characterized in that said needle-guide device is made of at least two removably connectable parts, which are shaped in such a manner that each of them forms complementary and substantially symmetrical parts of the peripheral delimiting wall of said elongated guide hole for a needle, which peripheral wall parts complete each other when said complementary and substantially symmetrical parts of the needle-guide device are connected, thereby forming and maintaining said elongated guide hole for accurately guiding the needle with a 360 degree covering delimiting wall over substantially the entire length of said guide hole, said removably connectable parts being engaged in a non-separable and non-sliding condition by removable mutual mechanical locking means, and said elongated guide hole having rectangular sections dimensioned to contact said needle at needle-guiding surfaces tangent to the outer surface of said needle, thereby restricting transverse movement of said needle in said guide hole.

2. (Previously Presented) A needle-guide device as claimed in claim 1, characterized in that the two parts of the needle-guide device have mutual abutment surfaces which are tangent or secant to the elongated guide hole for guiding the needle, whereas said elongated guide hole is obtained by a combination of grooves which are formed either integrally on one of the mutual abutment surfaces of one of the two parts of the needle-guide device or partly on one and partly on the other of the two abutment surfaces of both parts of the needle-guide device.

3. (Previously Presented) A needle-guide device as claimed in claim 1, characterized in that the separation plane between the two parts of the needle-guide device is parallel to the axis of the elongated guide hole and secant or substantially tangent to the hole.

4. (Previously Presented) A needle-guide device as claimed in claim 1, characterized in that said elongated guide hole has a section which corresponds to the

outer section of the needle, with the wall of the elongated guide hole adhering to the whole needle surface.

5. (Previously Presented) A needle-guide device as claimed in claim 1, characterized in that said elongated guide hole has polygonal sections having such a size as to be able to inscribe therein the cylindrical or elliptical or oval section of the needle and generating needle-guiding surfaces tangent to the outer surface of the needle.

6. (Previously Presented) A needle-guide device as claimed in claim 1, characterized in that the needle-guide device is composed of at least two removable parts, at least one base part and at least one second part, which two parts are separated from each other by a separation surface whose cross section is a broken rectangular curve, and forms a succession of alternate and parallel complementary engageable ribs, there being provided, in the opposite mutual abutment surfaces of the ribs of one or both of the two parts of the needle-guide device grooves having such a size and shape as to form together said elongated guide hole.

7. (Previously Presented) A needle-guide device as claimed in claim 6, characterized in that the broken rectangular line-shaped separation surface between said two parts of the needle-guide has constant or variable widths to generate guiding holes aligned on one or more planes and with different relative positions.

8. (Previously Presented) A needle-guide device as claimed in claim 1, characterized in that the needle-guide device may be divided in such a manner as to consist of more than two parts shaped in such a manner as to form complementary parts of the peripheral delimiting wall of said elongated guide hole.

9. (Previously Presented) A needle-guide device as claimed in claim 1, characterized in that said base body has an abutment or support surface for the second part of the needle-guide device, which second part has in turn at least one longitudinal groove whose size corresponds to the needle size, and forms the side walls and a wall transverse thereto for delimiting the needle-guiding hole, whereas its support surface on the base of the needle-guide device forms the missing wall of the elongated guide hole, when the two parts of the needle-guide device are connected.

10. (Previously Presented) A needle-guide device as claimed in claim 2, characterized in that the two mutual abutment surfaces of the two parts of the needle-guide device have each a groove whose width corresponds to the width of the needle and a partial depth relative to the corresponding dimension of the needle, the two grooves being coincident and completing mutually when the two parts of the needle-guide device are connected, thereby forming the elongated guide hole for guiding the needle.

11. (Previously Presented) A needle-guide device as claimed in claim 6, characterized in that the base part of the needle-guide device has at least a longitudinal groove in the surface abutting against the second removable part of the needle-guide device, for engagement of longitudinally continuous or discontinuous extensions of the side walls of a longitudinal groove formed in said second removable part of the needle-guide device, thereby forming the bottom of the longitudinal groove of the base, the missing completing wall of the elongated guide hole, whose additional delimiting walls are formed by the bottom of the longitudinal groove in said second part of the needle-guide device, the side walls of said groove and the extensions of said side walls of the groove in said second part of the needle-guide device.

12. (Previously Presented) A needle-guide device as claimed in claim 11, characterized in that said second part of the needle-guide device has a single extension of one of said two side walls of the longitudinal groove, a second extension being provided on said base part as an extension of the opposite side wall of the longitudinal groove in the base part of the needle-guide device, whereby each of the two parts of the needle-guide device forms two of the opposite walls of the elongated guide hole.

13. (Previously Presented) A needle-guide device as claimed in claim 11, characterized in that the arrangement of the extensions of the side walls of the grooves in the two parts of the needle-guide device is alternate and complementary over the length of the two extensions in the longitudinal direction of the grooves, either on one side and along the two opposite sides.

14. (Previously Presented) A needle-guide device as claimed in claim 1, characterized in that it has means for centering and partially interlocking the two parts of the needle-guide device.

15. (Previously Presented) A needle-guide device as claimed in claim 1, characterized in that the two parts of the needle-guide device have removable mutually locking means.

16. (Previously Presented) A needle-guide device as claimed in claim 15, characterized in that the two parts of the needle-guide device have mutually clamping screw threaded means.

17. (Previously Presented) A needle-guide device as claimed in claim 16, characterized in that the mutually clamping screw threaded means of the two parts of the needle-guide device have means for engaging said two parts of the needle-guide device in an non-separable condition, and in a incompletely clamped condition.

18-43. (Canceled)

44. (Previously presented) A combination of a needle-guide device having a base and an ultrasound probe comprising a body and a scan head, characterized in that the base of the needle-guide device is removably attachable to the probe body in a stable and predetermined position, said base having at least one shape mating extension which corresponds to a complementary shape mating portion of the outer surface of the ultrasound probe body to form mutual interlocking engagement means, further characterized in that it includes an external ultrasound probe having a bulged shape and a wider head as compared with the handgrip, wherein the probe head has its greatest circumference in an intermediate position between the front end and the portion connected to the handgrip, whereas the needle-guide device has a base having two preferably symmetrically coincident extensions before the greatest circumference of the probe head, and an extension with a fastening screw which overlaps a rear side of the widened head against which the fastening screw is tightened.

45-96. (Canceled)

97. (Currently amended) A combination of a needle-guide device In combination:

a needle-guide device for a medical probe comprising a base body having means for connection to the probe and an elongated guide hole for receiving a needle, characterized in that said needle-guide device is made of at least two removably

connectable parts, which are shaped in such a manner that each of them forms complementary and substantially symmetrical parts of the peripheral delimiting wall of said elongated guide hole for a needle, which peripheral wall parts complete each other when said complementary and substantially symmetrical parts of the needle-guide device are connected, thereby forming and maintaining said elongated guide hole for accurately guiding the needle with a 360 degree covering delimiting wall over substantially the entire length of said guide hole, said removably connectable parts being engaged in a non-separable and non-sliding condition by removable mutual mechanical locking means, and said elongated guide hole having rectangular sections dimensioned to contact said needle at needle-guiding surfaces tangent to the outer surface of said needle, thereby restricting transverse movement of said needle in said guide hole; and

an ultrasound probe, said ultrasound probe comprising a body and a scan head, the said body and scan head having a cylindrical or slightly frustoconical shape with a rounded end of the scan head[:]), said [[the]] needle-guide device being removably attachable to the probe body in a stable and predetermined position in which the axis of the needle, and of the needle-guide device and the axis of the probe are contained in a common plane, said base body having a clamping collar at its rear end for clamping the needle-guide device to the body of the probe in a region of the said body of the probe at its rear end and the said base body having at its front head an extension toward the probe engaging a centering recess in the probe head, the depths of the recess and the profile of the probe head and of the front head of the needle-guide device being such that in the assembled position the steeper front side of the said front head of the needle-guide device is joined to the outer surface of the probe head substantially without forming any step therewith and being connected therewith in a substantially harmonic manner.

98-100. (Canceled)